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## SMITH &amp; MONROE &amp; GRAY ENGINEERS

## MEMORANDUM

8-169

TO: Richard Cooke, V.P.  
Ash Grove Cement West Portland

FROM: Stephen Rinella, P.E.  
Smith & Monroe & Gray Engineers

DATE: April 29, 1991

RE: SEATTLE SITE DRAINAGE

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This morning Bob and I met with Dan Keppen from Klein Consulting to direct progress on the above referenced project. Following is a summary of our discussions and directions:

1. The project can be described into the following phases of work:

Phase 1: Develop alternate waste/storm water disposal schemes and prepare cost estimates. This work is complete and resulted in two reports from Klein dated November 1990 and April 1991 with three options for consideration. Ash Grove has selected "Option 2B: Pump Storm water to 18" diameter City Storm Sewer" and waste water disposal to Metro. We must now develop and implement this plan.

Phase 2: Develop selected plan for permit approval. Dan has determined that a permit will be required from the City of Seattle for storm water discharge into the public system and from Metro for disposal of the waste water. Dan will schedule a meeting as soon as possible (try for early next week) with the appropriate City authorities to discuss the selected option in detail and determine specific submittal requirements. It may be appropriate to ask Nate to participate in this meeting with Dan. After the meeting, Dan will outline the plan and submittal requirements in detail. The existing D.O.E. permit can be concluded after the new installation is functional.

Phase 3: Prepare additional documentation that may be required for construction.



2. We discussed details of the installation. Bob emphasized that the proposed 20 inch forced line to the City's 18 inch main did not seem correct. Dan explained that the technical regulations indicate the pump and line must be capable of conveying at the peak 25 year (spike) rate; however, we all agreed that the requirements were somewhat conflicting and some careful discussion with the City may help correct the problem. The size of the buried culvert pipe and the location and routing on the site were discussed in general. The plan will be to locate the culvert pipe in the area of the existing pond, the pump will be located near the existing cooling tower (power available). Actual routing to the City system will be determined to minimize cost and interference with other activities on the site.

NAF!

3. We discussed a few items with Nate. Nate indicated that for the waste water connection to METRO we could tie into the existing on site system either at the lift station near the Office or the line from the Finish Mill. In either case, work should be fairly easy and it appears no concrete paving need be demolished for trenching. Nate also mentioned a few other items regarding Klein's report, i.e. details of history that may be inaccurate.
4. Dan will determine the submittal requirements, the design requirements and prepare the technical (hydraulic calculations) support required. We (SMG) will use the site plan we have on CAD for the drainage plan drawing, we will also prepare the drawings for construction for the piping installation and grit settling basin. We will assemble the technical specifications with Dan's supervision.
5. As noted above, Dan will attempt to schedule a meeting with the City soon (preferably early next week), we estimated that we will require about three to four weeks to prepare submittal information and then perhaps two to four weeks for City review. Assuming some time for interaction and contingency, we could be prepared for construction in about twelve weeks.

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Note, I ask Dan to contact the City for the meeting as soon as possible and have that information ready for Bob to convey to Dick on Thursday morning.

cc: Nate Fernow, Ash Grove Seattle  
Dan Keppen, Klein Consulting  
Bob Monroe, SMG